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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
SHIN, KYUNG H

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/071,326	HANNUKSELA ET AL.	
	Examiner	Art Unit	
	Kyung H. Shin	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/26/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is responding to application filed 2/8/2002.

2. Claims **1 - 23** are pending. Claims **1 - 15, 17 - 23** have been amended. Claim **16** has been canceled. Independent claims are **1, 18, and 22**.

Response to Arguments

3. Applicant's arguments filed 9/28/05 have been fully considered but they are not persuasive.

3.1 Applicant argues that the referenced prior art does not disclose *" ... wherein the client device further comprises a pre-decoder buffer having a variable initial buffering time and a variable buffer size ... " (see Remarks Page 10, Lines 5-8)*

The Gunaseelan (20020097750) prior art discloses transmission of media content (see Gunaseelan Paragraph [0023], lines 4-8: media data processed), which requires a encode/decode capability to process and access media content (see Gunaseelan Paragraph [0023], lines 8-16; Paragraph [0039], lines 9-12: encode/decode capabilities), the usage of a pre-decoder buffer (see Gunaseelan Paragraph [0039], lines 9-12: pre-decode buffer), and the usage of variable timing and variable buffer size parameters (see Gunaseelan Paragraph [0026], lines 7-9; Paragraph [0026],

lines 11-14; Paragraph [0040], lines 1-7: variable buffer size and timing parameters).

3.2 Applicant argues that the referenced prior art does not disclose " … *dynamically adapting the variable initial buffering time and the variable buffer size of the pre-decoder buffer for improving playback performance of the client device …" (see Remarks Page 10, Lines 12-15)* ; " … *dynamically adapt either the variable initial buffering time or the variable buffer size …" (see Remarks Page 12, Lines 12-13)*

The Gunaseelan (20020097750) prior art discloses that the parameters for buffer size and timing are acquired dynamically as opposed to static. The server query for required parameters is based on client request and utilized for media data transmission. (see Gunaseelan Paragraph [0026], lines 7-9; Paragraph [0040], lines 1-7: server retrieves variable buffer size and timing parameters from client) By definition, dynamic refers to actions performed when they are needed rather than in advance. (http://www.webopedia.com/TERM/D/dynamic.html)

Therefore, the rejection of claims 1-23 is proper and maintained herein.

Claim Rejection - 35 USC § 102

The text of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. **Claims 1 - 16, 18, 21 - 23** are rejected under 35 U.S.C. 102(e) as being anticipated by Gunaseelan et al. (US PGPUB Application No. 20020097750).

Regarding Claim 1, Gunaseelan discloses a method of streaming media data by transmitting a plurality of encoded data packets over a network from a source server to a client device (see Gunaseelan paragraph [0005], lines 3-9: media content distribution system utilizing packet data) wherein the client device comprises a decoder for decoding the encoded packets (see Gunaseelan paragraph [0023], lines 8-16; paragraph [0039], lines 9-12: processing of media content includes decoding), wherein the client device further comprises a pre-decoder buffer having a variable initial buffering time and a variable buffer size (see Gunaseelan paragraph [0039], lines 3-7; paragraph [0040], lines 1-7: pre-read (i.e. pre-decoder) buffer utilized, time (i.e. timestamp) and buffer size variable parameters utilized), receiving the data packets transmitted by the source server at the pre-decoder buffer of the client device prior to decoding in the decoder of the client device; (see Gunaseelan paragraph [0039], lines 4-6: pre-read (i.e. pre-decode) buffer utilized), and dynamically adapting the variable initial buffering time and the variable buffer size (see Gunaseelan paragraph [0026], lines 7-9; paragraph [0026], lines 11-14; paragraph [0040], lines 1-7: variable timing and buffer size parameters, dynamically adjust buffer size when required) of the pre-decoder buffer for improving playback performance of the client device. (see Gunaseelan paragraph [0006], lines 6-11; paragraph [0049, lines 1-4; paragraph [0040], lines 1-7: adjust buffer size and timing parameters)

Regarding Claim 2, Gunaseelan discloses a method of claim 1, wherein the client device submits a request to the source server to set at least one of the variable initial buffering time and the variable buffer size (see Gunaseelan paragraph [0026], lines 7-9; paragraph [0026], lines 11-14: variable timing and buffer size parameters; paragraph [0040], lines 1-7: buffer size variable, input by client to server) of the pre-decoder buffer. (see Gunaseelan paragraph [0043], lines 7-11; paragraph [0039], lines 3-7: server returns buffer size parameter (i.e. pre-decoder buffer size) to be set by client)

Regarding Claim 3, Gunaseelan discloses the method of claim 1, wherein default values for the variable initial buffering time and the variable buffer size are defined for the pre-decoder buffer. (see Gunaseelan paragraph [0040], lines 1-7: client defines parameters (i.e. client based parameters (i.e. time and size) defined as default (i.e. not from server) or original parameters))

Regarding Claim 4, Gunaseelan discloses the method of claim 3, wherein the client device signals at least one of the default values for the variable initial buffering time and the variable buffer size for the pre-decoder buffer to the source server. (see Gunaseelan paragraph [0040], lines 1-7; paragraph [0026], lines 7-9: server queries client for variable parameters (i.e. time and size))

Regarding Claim 5, Gunaseelan discloses the method of claim 1, wherein the variable

initial buffering time of the pre-decoder buffer is dynamically adapted by the client device responsive to an indication of a required pre-decoder initial buffering time received from the source server..(see Gunaseelan paragraph [0040], lines 1-7: client request for parameters (i.e. dynamically, when required not in advance) ; paragraph [0043], lines 7-11: client sets parameters (i.e. time and size) returned from server)

Regarding Claim 6, Gunaseelan discloses the method of claim 1, wherein the variable buffer size of the pre-decoder buffer is dynamically adapted (see Gunaseelan paragraph [0040], lines 1-7: client request for parameters (i.e. dynamically, when required not in advance), required pre-decoder buffer size received from the source server; paragraph [0006], lines 6-11; paragraph [0049], lines 1-4: adjustment to (i.e. buffer size parameter, time parameter based on buffer size) parameters based on comparison of streaming media content delivery)

Regarding Claim 7, Gunaseelan discloses the method of claim 1, wherein a plurality of copies of the media data are available to the source server, each of the plurality of copies of the media data being characterised by at least one parameter indicative of a required property of the pre-decoder buffer in the client device. (see Gunaseelan paragraph [0023], lines 4-8; paragraph [0023], lines 24-26 paragraph [0039], lines 3-7: plurality of media data, size parameter for pre-read (i.e. pre-decoder) buffer)

Regarding Claim 8, Gunaseelan discloses the method of claim 7, wherein the at least

one parameter indicative of a required property of the pre-decoder buffer is transmitted from the source server to the client device. (see Gunaseelan paragraph [0043], lines 7-11: parameter (i.e. buffer size) transmitted from server to client)

Regarding Claim 9, Gunaseelan discloses the method of claim 8, wherein the at least one parameter indicative of a required property of the pre-decoder buffer is transmitted from the source server to the client device during establishment of a streaming data connection between the source server and the client device for streamed download of the media data. (see Gunaseelan paragraph [0043], lines 7-11: client request for delivery of media data (i.e. establish a connection), parameters transmitted from server to client)

Regarding Claim 10, Gunaseelan discloses the method of claim 8, wherein the at least one parameter indicative of a required property of the pre-decoder buffer is selected from a group including: a required pre-decoder initial buffering time, a required pre-decoder buffer size, or a combination of both a required pre-decoder initial buffering time and a required pre-decoder buffer-size. (see Gunaseelan paragraph [0039], lines 3-7: parameter, size of pre-read (i.e. pre-decoder) buffer ; paragraph [0040], lines 1-7; paragraph [0026], lines 7-9; paragraph [0026], lines 11-14: variable timing and variable buffer size parameters)

Regarding Claim 11, Gunaseelan discloses the method of claim 1, wherein the

dynamic adaptation is an adaptation performed by the client device responsive to a signal received from the source server. (see Gunaseelan paragraph [0040], lines 1-7; paragraph [0043], lines 7-11; paragraph [0006], lines 6-11: time (i.e. timestamp) parameter adjusted by server, parameters sent from server to client)

Regarding Claim 12, Gunaseelan discloses the method of claim 1, wherein a buffering algorithm is used in the source server to control the transmission of the data packets. (see Gunaseelan paragraph [0039], lines 3-7: client buffering (i.e. buffering algorithm) for data transmission)

Regarding Claim 13, Gunaseelan discloses the method of claim 12, wherein the buffering algorithm causes the source server to adjust the transmission times of data packets from the source server to the client device. (see Gunaseelan paragraph [0040], lines 1-7; paragraph [0006], lines 6-11: time (i.e. timestamp) parameter adjusted based on buffering parameters)

Regarding Claim 14, Gunaseelan discloses the method of claim 12, wherein the buffering algorithm verifies that the transmission of the data packets from the source server is in accordance with the variable initial buffering time and variable buffer size of the pre-decoder buffer in the client device. (see Gunaseelan paragraph [0049], lines 1-4: comparison of delivery times utilized to verify performance parameters (i.e. time, size))

Regarding Claim 15, Gunaseelan discloses the method of claim 1, wherein a post-decoder buffer is implemented in the client device to reduce decoding-related delay variations. (see Gunaseelan paragraph [0039], lines 1-3: buffers (i.e. pre-read buffer and other buffer(s)) utilized to smooth out performance during media data playback)

Regarding Claim 18, Gunaseelan discloses a system for streaming media data by transmitting a plurality of data packets containing the media data, the system comprises:

a) a source server hosting the media data; (see Gunaseelan paragraph [0023], lines 4-10; server system for media data delivery)

b) a network serving as a transmission medium for the data packets containing the media data; (see Gunaseelan paragraph [0023], lines 1-3: network communications utilized for distribution system for media data) and

c) a client device capable of playing back the media data recovered from the data packets (see Gunaseelan paragraph [0028], lines 8-12: client plays delivered media content (i.e. playing back media data)) wherein the client device comprises:

a) a pre-decoder buffer for receiving the transmitted data packets from the source server via the network, the pre-decoder buffer having a variable initial buffering time and a variable buffer size; (see Gunaseelan paragraph [0039], lines 3-7:

pre-read (i.e. pre-decoder) buffer, time (i.e. timestamp) parameter based on buffer size)

b) a decoder coupled to the pre-decode buffer for decoding the data packets received by the pre-decoder buffer; (see paragraph [0023], lines 8-16; paragraph [0039], lines 9-12: decode capability for delivered media data) and

c) means for dynamically adapting the variable initial buffering time and the variable buffer size of the pre-decoder buffer, wherein the dynamic adaptation of the variable initial buffering time and the variable buffer size improves playback performance of the client device. (see Gunaseelan paragraph [0040], lines 1-7; paragraph [0026], lines 7-9; paragraph [0026], lines 11-14: variable timing and buffer size parameters ; paragraph [0006], lines 6-11: adjust time (i.e. timestamp) and size parameters for performance improvement)

Regarding Claim 21, Gunaseelan discloses the system of claim 18, wherein a buffering algorithm is implemented in the source server for ensuring that the data packets are transmitted at a rate that complies with buffering capabilities of the client device. (see Gunaseelan paragraph [0041], lines 14-23: adjustment parameters for buffer processing are stored in server)

Regarding Claim 22, Gunaseelan discloses a client device for receiving a plurality of data packets transmitted over a network from a source server, the data packets containing media data wherein the client device comprises:

a) a pre-decoder buffer for receiving the transmitted data packets from the source server via the network the pre-decoder buffer having a variable initial buffering time and a variable buffer size; (see Gunaseelan paragraph [0039], lines 3-7: pre-read (i.e. pre-decoder) buffer)

b) a decoder for decoding the data packets from the pre-decoder buffer; (see Gunaseelan paragraph [0023], lines 8-18; paragraph [0039], lines 9-12: decode capability utilized for media data) and

c) means for dynamically adapting the variable initial buffering time and the variable buffer size of the pre-decoder buffer for improved playback performance by the client device. (see Gunaseelan paragraph [0006], lines 6-11: paragraph [0040], lines 1-7: adjust parameters (i.e. time, size) for playback performance improvement)

Regarding Claim 23, Gunaseelan discloses the client device of claim 22, wherein the client device is selected from a group comprising: a wireless terminal, a desktop computer, and a laptop computer. (see Gunaseelan paragraph [0024], lines 7-9: client device, desktop computer or other types of computer systems)

Claim Rejection - 35 USC § 103

6. **Claims 17, 19, 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunaseelan et al. (US Patent No. 2002/0097750) in view of West et al. (US Patent No.

6,842,433).

Regarding Claim 17, Gunaseelan discloses media data transmitted to a wireless client device and said network includes a wireless network. (see Gunaseelan paragraph [0005], lines 3-10; paragraph [0025], lines 10-12: media content (i.e. media data) distribution system utilizing wireless communications) Gunaseelan does not specifically disclose wireless communications utilizing GPRS. However, West discloses the method of claim 1, wherein the network comprises a wireless network, the wireless network being selected from a group comprising: a GPRS (General Packet Radio Service) wireless network and a UMTS (Universal Mobile Telecommunications System). (see West col. 5, lines 49-52; col. 36, lines 10-16: wireless communications system (i.e. utilizing GPRS and other wireless protocols such as UMTS) for distribution of media data (i.e. audio, video))

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gunaseelan to utilize wireless communications for the distribution of media content as taught by West. One of ordinary skill in the art would be motivated to employ West in order to increase the communications range of conventional portable computing devices and obtain the benefits from improvements in the ability to access information within a wireless communications environment. (see West col. 1, lines 26-29; col. 2, lines 37-39)

Regarding Claim 19, Gunaseelan discloses a content distribution system utilizing

wireless communications. (see Gunaseelan paragraph [0005], lines 3-10; paragraph [0025], lines 10-12: content distribution system, wireless communications) Gunaseelan does not specifically disclose a wireless communications utilizing the GPRS. However, West discloses the system of claim 18, wherein the network comprises a wireless network selected from a group comprising: a GPRS (General Packet Radio Service) wireless network and a UMTS (Universal Mobile Telecommunications System) (see West col. 5, lines 49-52; col. 36, lines 10-16: wireless communications system (i.e. utilizing GPRS and other wireless protocols such as UMTS) for distribution of media data (i.e. audio, video))

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gunaseelan to utilize wireless communications for the distribution of media content as taught by West. One of ordinary skill in the art would be motivated to employ West in order to increase the communications range of conventional portable computing devices and obtain the benefits from improvements in the ability to access information within a wireless communications environment. (see West col. 1, lines 26-29; col. 2, lines 37-39)

Regarding Claim 20, Gunaseelan discloses a content distribution system utilizing wireless communications. (see Gunaseelan paragraph [0005], lines 3-10; paragraph [0025], lines 10-12: content distribution system, wireless communications) Gunaseelan does not specifically disclose a wireless device for packet receipt. However, West discloses the system of claim 19, wherein the client device is a wireless terminal

compatible for data packet use by the wireless system. (see West col. 5, lines 49-52; col. 38, lines 22-29: wireless communications system for distribution of media data (i.e. audio, video) to a wireless device)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gunaseelan to utilize wireless communications for the distribution of media content as taught by West. One of ordinary skill in the art would be motivated to employ West in order to increase the communications range of conventional portable computing devices and obtain the benefits from improvements in the ability to access information within a wireless communications environment. (see West col. 1, lines 26-29; col. 2, lines 37-39)

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H. Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KHS
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Patent Examiner
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January 26, 2006

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